

# POOL LIGHTING GUIDE 1

## TECHNICAL SPECIFICATIONS EVO2 LED FLUSH MOUNTED POOL LIGHTS

Features:	Operated by extremely safe extra low voltage supply (12V AC), low power consumption, long life span, easy installation and operation
Nominal Supply Voltage:	12V AC 50/60 Hz
Voltage Tolerance:	+20%, -20%
Protection Rating:	IPX8 (to 2.0m depth)
Temperature Range:	-10°C ~ +40°C water temperature
Power Consumption:	White, blue and green = 8 VA
Power Consumption:	Spectrum III Multi Colour = 16 VA maximum
Lamp Life:	>50,000 hours
Light Output (typical):	White-550 lumens, blue-180 lumens, green-500 Lumens
Fault Protection:	Power-cycle "run dry" thermal cut-out. Voltage transient clamping.



## INSTALLATION LOCATION – EVO2 LED FLUSH MOUNTED POOL LIGHTS

Evo2 LED Lights must only be operated underwater as they are water-cooled.

Install in an accessible location, ensure that sufficient cable is wound up inside the housing to allow the light to be floated to the deck level. If being installed facing up, ensure that there is minimum 100mm of water cover.

**For Concrete Pools:** Can be installed on a vertical or horizontal wall. Up to 1.6m of cable can be wound up inside the Evo2 Concrete Housing.

**For Fibreglass and Vinyl Pools:** Install on vertical wall only. Lights are supplied with 1.0m of cable wound up inside Fibreglass/Vinyl Housing.

**Please note:** Evo2 Pool Lights easily fit into the Aqua-Star Concrete Housing. The larger Aqua-Star Halogen Pool Light will **NOT** fit into the more compact Evo2 Concrete Housing.

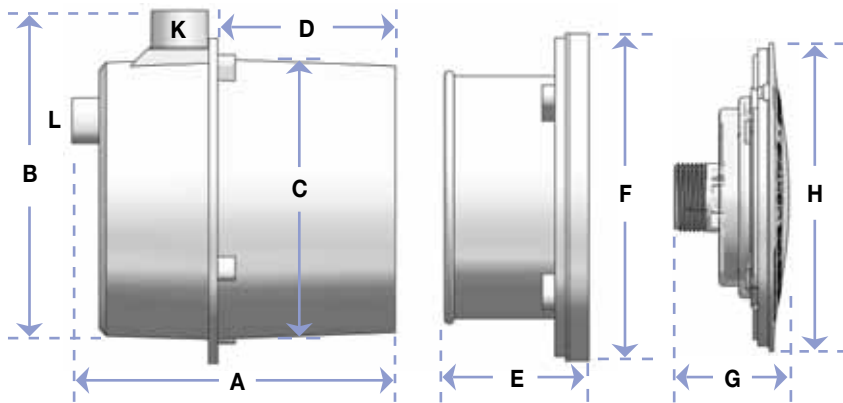
## TECHNICAL SPECIFICATIONS AQUA-QUIP SURFACE MOUNTED LED POOL LIGHTS

Power Requirement for Fixed Colour and Multi-Colour LEDs:	12V ~ 32V AC 50/60Hz.
Pool Light Protection Rating:	IPX8 to 2.0m depth.
Temperature Range:	-10°C ~ +40°C pool water temperature.
Installation Location:	200mm ~ 400mm below water level.
Power Consumption (Fixed Colour LEDs):	Maximum 16VA at all voltages 12V ~ 32V.
Power Consumption (Multi-Colour LEDs):	Maximum 22VA at all voltages 12V ~ 32V.
Rated Lamp Life:	>50,000 hours.
Voltage Tolerance (Fixed Colour and Multi-Colour LEDs):	10.5V AC ~ 35V AC.
Light Colour:	White = >5000K, Blue = 475nm, Green = 525nm.
Light Output (Typical):	White = 1050 Lumens, Blue = 300 Lumens, Green = 650 Lumens.
Fault Protection:	Power Cycle "Run Dry" thermal cut-out. Voltage transient clamping.

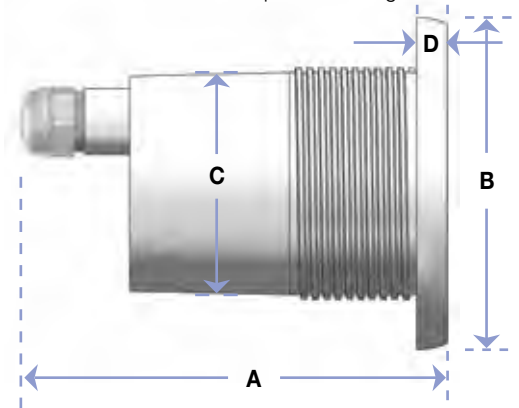


# POOL LIGHTING GUIDE 2

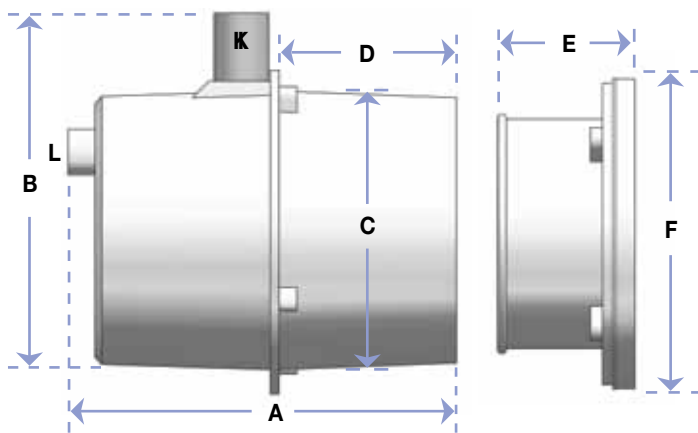
Evo2 Flush Mounted Pool Light – Concrete



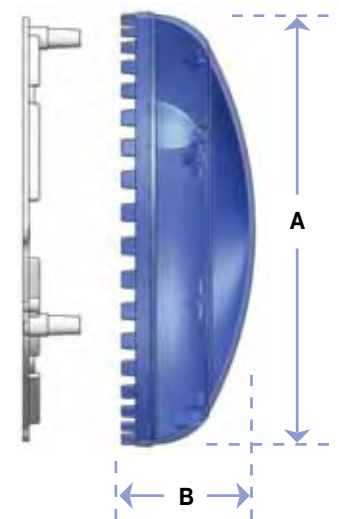
Fibreglass/Vinyl Housing  
Suits Evo2 LED and Aqua-Star Halogen



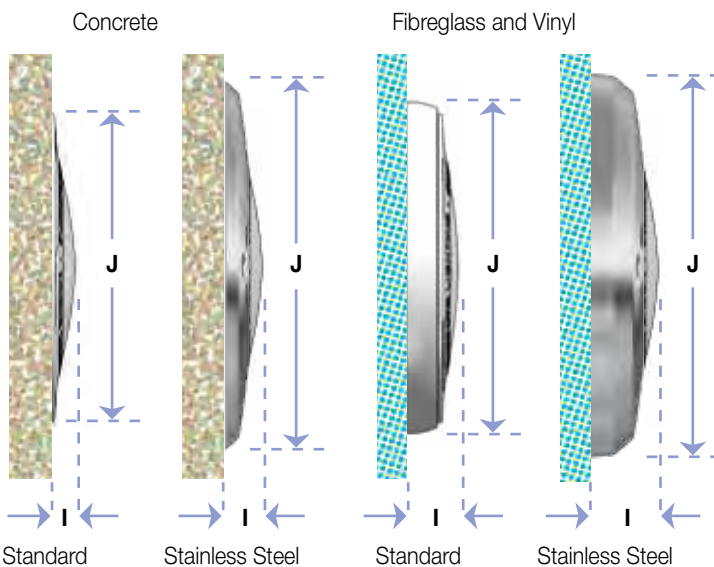
Aqua-Star Flush Mounted Pool Light – Concrete



Aqua-Quip Surface Mounted Pool Light



Pool Wall Profile: Evo2 LED and Aqua-Star Halogen



Dimensions for the major components of Aqua-Quip's Pool Lights can be obtained by cross-referencing the relevant code on the table below:

DIMENSIONS (mm)				
	EVO2	AQUA-STAR	FIBREGLASS HOUSING	SURFACE MOUNTED
<b>A</b>	144	171	195	230
<b>B</b>	154	169	144	67
<b>C</b>	120 max	120 max	100 max	
<b>D</b>	79	79	13	
<b>E</b>	63	63		
<b>F</b>	143	143		
<b>G</b>	49	120		
<b>H</b>	135	135		

Dimensions in this table are the protrusions and diameters of Evo2 and Aqua-Star Flush Mounted Lights in the diagrams above.

DIMENSIONS (mm)				
	CONCRETE STANDARD	CONCRETE S/STEEL	FIBREGLASS STANDARD	FIBREGLASS S/STEEL
<b>I</b>	7	14	23	25
<b>J</b>	143	160	144	167

**K** Accepts 20mm conduit or 25mm socket  
**L** Accepts 20mm socket

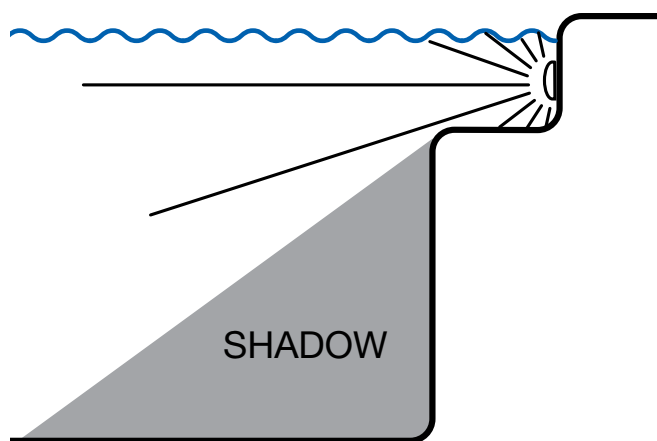
# POOL LIGHTING GUIDE 3

## SHADOWING

### Shadowing

Shadowing can be created when mounting the pool light above ledges or swimouts.

A bright spot will appear on the ledge and a shadow is likely to appear on the pool floor.

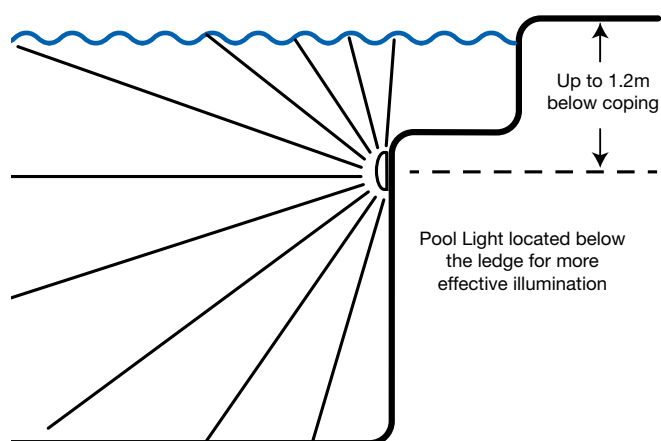


### To Minimise Shadowing

Mounting the pool light below the ledge allows the pool floor to be more substantially illuminated.

**Concrete Pools:** 1.6m of cable can be wound up inside the Aqua-Quip Evo2 LED Concrete Housing, allowing the light to be installed up to 1.2m from the coping. To locate the light deeper than this, use the Extended Dress Ring (see pages 16-17), contact Aqua-Quip for advice.

**Fibreglass Pools:** 1m of cable is supplied factory-fitted to the Fibreglass Housing for Evo2 LED Lights. This can be extended to 1.6m for special orders.



## GENERAL INFORMATION

**Choosing the ideal quantity and location for underwater pool lights can be tricky.** You will need to take into account the internal pool colour, as the darker the interior, the more lights are required. Additionally, shadowing may occur if lights are located above steps and ledges. These factors, along with the colour of the LED will determine the illumination effectiveness. Aqua-Quip's Lighting Design Service streamlines this whole process and provides a clear proposal that you can send direct to your client. Simply email your plans to [design@aquaquip.com.au](mailto:design@aquaquip.com.au).

**Warning:** Never stare directly at LED Pool Lights. Prolonged direct exposure can cause eye damage.

**Multiple lights per transformer on a new swimming pool?** Refer to "The Wiring Rules" AS/NZS 3000:2007 Amendment #1. *"Each underwater luminaire must be supplied from an individual source. An individual source may be an individual isolation transformer or an individual winding on an isolation transformer having a number of secondary windings"*.

**Aqua-Quip's transformers allow multiple lights to be connected.**

APL502/512 allows up to 2 x 50va lights to be connected.

APL504/514 allows up to 4 x 50va lights to be connected. All of Aqua-Quip's transformers are approved and comply with AS 61558.2.6.